

Toho Water Authority Approved Materials & Manufacturers (March 2023)

Sanitary Sewer Gravity and Force Main Materials

Sanitary Sewer Valves

| | | |
|---|-----------------------------------|---|
| Air Release Valve Enclosures Sewer - Green | Water Plus Corp | 131632 H30-G, 44" Tall 171730 H40-G, 30" Tall |
| | Hot Box Vent Guard | AVG 2036 Top, 36" Tall, GP 3232 Base AVG 2041 Top, 41" Tall, GP 3232 Base |
| | Safety-Guard / Hydro-Guard | 15100, 34" Tall |
| | ARI Flow Controls | D-020 - Stainless Steel D-025 - Stainless Steel D-025L - S.S., Lift Station |
| Air Release Valves | H-Tech | 986 - Stainless Steel |
| | Vent O Mat | RGX 2 |
| | Kennedy – McWane | 1106AW |
| Check Valves | M&H – McWane | 159-02A |
| | Mueller | A-2600-6-01B1 |
| | Clow – McWane | 1106AW |
| | GA Industries | 220 |
| | Clow – McWane | AWWA C509, Resilient Wedge, Fusion Bond Epoxy Coating |
| Mueller | | |
| American | | |
| Valve Box Lids | Cast Iron, Round | |
| Valve Box Risers | Valve Box Extensions (screw type) | |

Sanitary Sewer Manholes

| | | |
|--|------------------------------|-----------------------------------|
| Precast Polymer Manholes & Wetwells | Armorock | |
| | Rockhard | |
| Concrete Admix | Kryton International | KIM K-301R (with red dye) |
| | Xypex Chemical Corp | Xycrylix (with red dye) |
| | Xypex Chemical Corp | Admix C-1000Red (with red dye) |
| Manhole Frame and Cover | U.S. Foundry | USF-663-AB-MK |
| | EJ | 1079Z |
| Manhole Inflow Barrier | USSI | Inflow Defender w/Stiffening Ribs |
| Manhole Jointing Material | Henry | RN-101 |
| | ConSeal | RN-103 |
| | Martin Asphalt Co. | CS-102B |
| | Canusa-CPS | Evergrip 990 |
| Manhole External Joint Sealer | GPT | Wrapid Seal |
| | Trelleborg | Riser Wrap |
| Pipe to Manhole Seal | Tylox | Kor-N-Seal |
| | A-Lok | Cobra Boot |
| | Z-Lok | A-Lok |
| | | Z-Lok |
| Manhole Drop Connection Transition Coupling | SDR35 or SDR26 to SCH-80 PVC | |

Sanitary Sewer Pipe & Fittings

| | | |
|---------------------------|---|---|
| Mechanical Joint Fittings | Tyler Union | Protecto 401 or Permax CTF Lining Required |
| | U.S. Pipe – Mueller | |
| | American | |
| | Star Pipe | |
| | Clow - McWane | |
| | Sigma | |
| | SIP | |
| PVC Fittings | SDR 26 Minimum | |
| Pipe, PVC Force Main | Diamond Sanderson Westlake CertainTeed JM Eagle National Pipe | C900 / C905 DR25 Minimum Unrestrained DR18 Minimum Restrained |
| Pipe, PVC Gravity | SDR 35 Minimum | |
| Pipe, HDPE | C906 DR17 Minimum | |

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| PVC Bell Restraints | Smith Blair | Bell-Lock Series 165 |
| | Tyler Union | Series 3000 |
| | Romac | 600 Series |
| | EBAA Iron | Tru-Dual 1500 |
| | Ford | Uni-Flange Series 1390 |
| | Star Pipe Products | Series 4400 |
| | Sigma | PV-Lok Series PVP |
| | SIP | EZ Grip PTPVC/PTPS |
| DIP Bell Restraints | Tyler Union | Series 3000 |
| | Romac | 600 Series |
| | EBAA Iron | Tru-Dual 1500 |
| | Ford | Uni-Flange Series 1390 |
| | Sigma | PV-Lok Series PWP |
| | SIP | EZ Grip PTPVCDI |
| Mechanical Joint Restraints | Tyler Union | TufGrip |
| | Romac | Field Lok |
| | EBAA Iron | GripRing |
| | Ford | Megalug |
| | Star Pipe Products | Uni-Flange |
| | Sigma | StarGrip |
| | SIP | One-Lok |
| | | EZ Grip EZD (DI) EZ Grip EZPVC (PVC) |
| Casing Spacers | Cascade Waterworks | Fusion Bonded Coating, 2" Runners, 12" Band |
| | GPT | |
| | BWM Company | |
| | Advance Products | |
| | CCI Pipeline | |
| Expansion Joints | Mercer Rubber | Rubber Flex |
| | Metraflex | Rubber Flex |
| | EBAA Iron | Sliding Seal |
| Locate Tape | 3M | EMS 7900-XT |
| Marker Tape | Metallic | |
| Locator Ball | 3M | Extended Range Ball Marker |
| Locator Wire | Direct Bury – 14 Gauge Insulated Solid Copper | |
| | Directional Drill - 2 - 8 Gauge, 1 Insulated Solid Copper & 1 Insulated Copper Clad Steel Core | |
| Sanitary Sewer Tapping Sleeves & Saddles | | |
| Service Saddles | JCM | 406 |
| | Ford | FC202 |
| | Romac | 202NS |
| | Mueller | DR2S |
| | Smith-Blair | 317 |
| | Robar | 2408 |
| | Total Piping Solutions | T3-316 |
| | | |
| Tapping Sleeves, Fabricated Steel | JCM | 412 |
| | Romac | FTS420 w/ Stainless Hardware |
| | Ford | FTSC |
| Tapping Sleeves, Full Body Ductile Iron Mechanical Joint | American Flow Control | 2800 |
| | Mueller | |
| Tapping Sleeves, Full Body Stainless Steel | JCM | 432 |
| | Cascade | CST-EX |
| | Total Piping Solutions | Triple Tap |
| Lift Station Materials | | |
| Conduit (wet well to panel) | Rigid Aluminum | |
| Generator Circuit Breaker | Square D | |
| Generator Systems | Caterpillar | |
| | Onan (Cummins) | |
| Automatic Switch Gear | Onan | |
| | Zenith – General Electric | |
| Pressure Gauges | Ashcroft | 4" Fluid filled dial with isolator/ Range per plans |
| | H.O. Trerice Co. | |

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|----------------------------------|-------------------------------|---|
| Submersible Pumps | Flygt (Xylem) | |
| | Sulzer | |
| | Homa | |
| Aluminum Pump-out Discharge | Coupling Co., Inc. | 4" & 6" Piping - 4" Male Cam & Groove 8" or Greater Piping - Dixon 8" Flange |
| Wetwell Access Frames and Covers | Halliday | W2S with fall protection, slam lock, EPDM gasket and bit coating |
| Control Panels (CP) | Multitrode | |
| | Flygt | |
| | Stacon, Inc. | |
| Alarm Horn (AH) | Edwards | ALA43T-GA-115S |
| | Wheelock | 31T-115-R |
| Alarm Light (AL) | Red Dot | ALVLRX-40 |
| Area Light | Atlas Lighting | DD175M |
| Control Circuit Breaker | Square D – Schneider Electric | QOU120 |
| Control Circuit Transformer | Square D – Schneider Electric | EO-18 |
| Duplex Receptacle/GFI | Square D – Schneider Electric | GFSR-115-IC |
| | Hubbel | GF-52621 |
| | Pass & Seymour | 2095BKCC10 |
| Elapse Time Meter | Cramer | 635G |
| | Hecon - Daneher | TO621134 |
| Emergency Circuit Breaker | Square D – Schneider Electric | QOU, FAL, KAL, LAL |
| Enclosure | Hoffman - Pentair | |
| | Tanco – Thomas & Betts | |
| Flasher | MPE | 025-120-13SP |
| | SSAC | FS-126 |
| Transducer | JDA | 2000S |
| Float Regulator | Roto-Float | N. C. |
| Fuses | Cooper Bussmann | |
| | Gould-Ferraz-Shawmut | |
| Generator Receptacle | Crouse-Hinds | AR2042: (230V,200A, 3P,4W) |
| | | AR2042S22: (460V,200A,3P,4W) |
| Ground Test Enclosure | Quazite - Hubbell | AC111817KEO |
| Hand-off-auto Selector | Square D – Schneider Electric | 9001-SKS |
| Horn Silence Button | Square D – Schneider Electric | 9001-SKR-1U |
| Interior Panel Light | American Lighting | LXC1H-WH |
| Magnetic Flow Meter | Endress-Hauser ProMag 500 | Ethernet IP & 4-20 ma. |
| Main Circuit Breaker | Square D – Schneider Electric | QOU, FAL, KAL, LAL |
| Main Circuit Transformer | Square D – Schneider Electric | 500SV43F |
| Moisture and Temperature Light | Dialight | 803-1710 |
| | General Electric | LMP1819, LMP120MB |
| Motor Circuit Breaker | Square D – Schneider Electric | QOU, FAL, KAL, LAL |
| Motor Starter | Square D – Schneider Electric | D-8536, NEMA Size 1, 2, 3 |
| Overload Heater | Square D – Schneider Electric | |
| Phase Monitor | Diversified | LSU-100-ASA |
| Pilot Light | Square D – Schneider Electric | 9001 |
| | Dialight | 803-1710 |
| | General Electric | LMP1819, LMP120MB |
| Pump Automatic Alternator | Diversified – Marsh Bellofram | BRA-120-ACA (Duplex) |
| Relay | Potter Brumfield - Tyco | KRPA-11AN |
| | Eagle Signal - Danaher | 22 Series |
| Resistor | | 5 watt, 2500 ohm |
| Run Indicator Light | Square D – Schneider Electric | 9001 |
| | Dialight | 803-1710 |
| | General Electric | LMP1819, LMP120MB |
| Safety Mat | NoTrax | Safety Stance 549 - 36"x64" |
| Surge Protector | General Electric | |
| | Edco - Emerson | |
| Terminal Strips | Square D – Schneider Electric | 9070-GR6 |
| | Marathon – Regal Beloit | Series 200 |
| | Phoenix | UKK B3 |
| Odor Control System | Biorem | |
| | BioAir Solutions | |
| | Evoqua - Siemens | ZABOCS |

| Geotextile Fabric | U.S. Fabrics | US 315 |
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| Water & Reuse Main Materials | | |
| Water & Reuse Main Valves | | |
| Air Release Valve Enclosures -Blue Water Reuse Pantone Purple | Water Plus Corp | 131632 H30, 44" Tall 171730 H40, 30" Tall |
| | Hot Box Vent Guard | AVG 2036 Top, 36" Tall, GP 3232 Base AVG 2041 Top, 41" Tall, GP 3232 Base |
| | Safety-Guard / Hydro-Guard | 15100, 34" Tall |
| | ARI Flow Controls | D-020 - Stainless Steel D-025 - Stainless Steel |
| Air Release Valve | H-Tech | 986 - Stainless Steel |
| | Dezurik | 440 |
| | Ventomat | RBX |
| | Pressure Reducing Valve | Ames |
| Check Valves | Kennedy - McWane | 1106AW |
| | M&H - McWane | 159-02A |
| | Mueller | A-2600-6-01B1 |
| | Clow - McWane | 1106AW |
| | GA Industries | 220 |
| Gate Valves | Clow - McWane | AWWA C509, Resilient Wedge, Fusion Bond Epoxy Coating |
| | Mueller | |
| | American | |
| Valve Box Lids | Cast Iron, Water - Round, Reuse - Square | |
| Valve Box Risers | Valve Box Extensions (screw type) | |
| Water & Reuse Main Tapping Sleeves | | |
| Tapping Sleeves, Fabricated Steel | JCM | 412 |
| | Romac | FTS420 w/ Stainless Hardware |
| | Ford | FTSC |
| | Robar | 6908 |
| Tapping Sleeves, Full Body Ductile Iron Mechanical Joint | American Flow Control | 2800 |
| | Mueller | |
| | JCM | |
| Tapping Sleeves, Full body Stainless Steel | US Pipe | H-615 |
| | JCM | 432 |
| | Cascade | CST-EX |
| | Robar | 6606BB |
| | Ford | FTSS-xxxx |
| Line Stop | Total Piping Solutions | Triple Tap |
| | JCM | A440-0905 |
| Water & Reuse Main Pipe and Fittings | | |
| Mechanical Joint Fittings | Tyler Union | Cement Lined |
| | U.S. Pipe - Mueller | |
| | American Ductile Iron Pipe Co. - ACIPCO | |
| | Star Pipe | |
| | Clow - McWane | |
| | Sigma | |
| Pipe, Ductile Iron | SIP | Cement Lined |
| | American | |
| | U.S. Pipe | |
| Pipe, PVC | McWane | C900/C905 DR18 |
| | Diamond | |
| | Sanderson | |
| | WestLake | |
| | CertainTeed | |
| | U.S. Pipe - Mueller | |
| | JM Eagle | |
| | National Pipe & Plastic | |
| Pipe, HDPE | North American | C906 DR11 |

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|---|---|---|
| PVC Bell Restraints | Smith Blair | Bell-Lock Series 165 |
| | Tyler Union | Series 3000 |
| | Romac | 600 Series |
| | EBAA Iron | Tru-Dual 1500 |
| | Ford | Uni-Flange Series 1390 |
| | Star Pipe Products | Series 4400 |
| | Sigma | PV-Lok Series PVP |
| | SIP | EZ Grip PTPVC/PTPS |
| DIP Bell Restraints | Tyler Union | Series 3000 |
| | Romac | 600 Series |
| | EBAA Iron | Tru-Dual 1500 |
| | Ford | Uni-Flange Series 1390 |
| | Sigma | PV-Lok Series PWP |
| | SIP | EZ Grip PTPVCDI |
| Mechanical Joint Restraints | Tyler Union | TufGrip |
| | | Field Lok |
| | Romac | GripRing |
| | EBAA Iron | Megalug |
| | Ford | Uni-Flange |
| | Star Pipe Products | StarGrip |
| | Sigma | One-Lok |
| | SIP | EZ Grip EZD (DI) EZ Grip EZPVC (PVC) |
| Casing Spacers | Cascade Waterworks | Fusion Bonded Coating, 2" Runners, 12" Band |
| | GPT | |
| | BWM Company | |
| | Advance Products | |
| | CCI Pipeline | |
| Locate Tape | 3M | EMS 7900-XT |
| Marker Tape | Metallic | |
| Locator Wire | Direct Bury – 14 Gauge Insulated Solid Copper | |
| | Direction Bore - 2 - 8 Gauge, 1 Insulated Solid Copper & 1 Insulated Copper Clad Steel Core | |
| Fire Hydrants | Mueller | Super Centurion |
| | Kennedy | Guardian K-81A |
| | | Guardian K-81D |
| | Waterous | Pacer 250 |
| | Clow | Medallion |
| | U.S. Pipe | M94 |
| American Flow Control | B84B | |
| Automatic Flushing Device | Environmental Enhancement Technologies USA | Hydro Guard HG-1 |
| Water & Reuse Service Lines | | |
| Polyethylene Tubing | Endot | EndoPur - Water |
| | | EndoCore - Reuse |
| | Charter Plastics | Blue Ice – Water |
| | | Lavender Ice - Reuse |
| | Vanguard Pipe & Fittings | Bruiser - Water |
| | | Purple - Reuse |
| Poly Flex - CTS | | |
| Corporation Stops (Pressure Tested with a Larger Overall Distribution System) | ADS | |
| | Mueller | MIP Inlet to Pack Joint Outlet, No Lead Brass, Ball Valve |
| | Ford | |
| A.Y. McDonald | | |
| Corporation Stops (Not Pressure Tested with a Larger Overall Distribution System) | Mueller | MIP Inlet to FIP Outlet, No Lead Brass, Ball Valve |
| | Ford | |
| | A.Y. McDonald | |
| Curb Stops | Mueller | Pack Joint to Swivel Meter Nut, Padlock Wing, No Lead Brass, Ball Valve |
| | Ford | |
| | A.Y. McDonald | |
| Service Wye | Mueller | Pack Joint, No Lead Brass |
| | Ford | |
| | A.Y. McDonald | |

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|--------------------------|------------------------|-----------------------|
| Meter Box | NDS | D1500-OLSB – Water |
| | | D1200-OLSB – Water |
| | | D1500-DVOLSP – Reuse |
| | | D1200-OLSP – Reuse |
| Service Saddles | Ford | FC202 |
| | Romac | 202NS |
| | Mueller | DR2S |
| | Smith-Blair | 317 |
| | Robar | 2408 |
| | Total Piping Solutions | T3 |
| Service Saddles for HDPE | Smith-Blair | 317, 4" - 16" Pipe |
| | Ford | FCP202, 4" - 12" Pipe |
| | JCM | 406, 4" - 24" Pipe |
| | Romac | 202N-H, 4" - 12" Pipe |
| | Total Piping Solutions | T3, 2" – 48" Pipe |

Water & Reuse Meter and Backflow Assembly (3" And Larger)

| | | |
|-------------------------|----------------------------------|---------------------------------------|
| Potable | Neptune | Mach 10 |
| Reuse | Neptune | Mach 10 |
| Flanged Meter Strainer | Neptune (3" - 4") | 53107, Rilsan Nylon-Coated DI |
| | Neptune (6" - 10") | 52000, Rilsan Nylon-Coated DI |
| Flanged RPZ Backflow | Wilkins | 3-3750SY |
| | Apollo | 4ALF |
| Flanged OS&Y Gate Valve | AFC | 2500, Fusion Bond Epoxy Coated DI |
| | Mueller | R-2361-6, Fusion Bond Epoxy Coated DI |
| Flanged Fittings | Tyler Union | DI Fusion Bond Epoxy Coating |
| | Sigma | |
| | Matco Norca | |
| Flange Kit | Zinc plated w/ Red Rubber Gasket | |
| Pipe Supports | Cold Spray Galvanized | |

Paint, Coatings, Ad-Mixtures and Liners

Miscellaneous

| | | |
|---|----------------------------|--|
| Concrete Admix | Kryton International | KIM K-301R (with red dye) |
| | Xypex Chemical Corp | C-1000 (with red dye) |
| | Xypex Chemical Corp | Xycrylix (with red dye) |
| Manhole Interior Surface Liner (Existing Structures with minimal concrete deterioration) | Sauereisen | SewerGard 210 |
| | Raven Lining Systems | Raven 405 |
| | CCI Spectrum, Inc | SpectraShield |
| | Kerneos, Inc. | SewperCoat |
| | Quadex, Inc. | Aluminaliner |
| | GML Coatings, LLC | Green Monster Liner |
| | Sprayroq, Inc. | Spraywall |
| Wet Well and Manhole Rehabilitation Coating (Existing Structures with significant concrete deterioration) | Sauereisen | F120/121 Underlayment + 210 Liner |
| | Raven Lining Systems, Inc. | Raven 405 |
| | Quadex, Inc | Aluminaliner |
| | Kerneos, Inc. | SewperCoat |
| | GML Coatings, LLC | GML30/60 Underlayment + GML Primer + Green Monster Liner |

Coatings for Wet Well Fittings

| | | |
|--------------|------------|----------------|
| Field primer | Sauereisen | Conoweld 501 |
| | Tnemec | Zinc 90-97 |
| Topcoat | Sauereisen | SewerGard 210G |
| | Tnemec | Typosy 27WB |

Coatings for Above Ground Pipe & Fittings (Water, Reuse & Sewer)

| | |
|-----------------------|--------------------|
| Field primer | Alkyd metal primer |
| Topcoat | Alkyd gloss enamel |
| Toho Fire Hydrants | Gray |
| Private Fire Hydrants | Per Owner |